Remarks

Upon entry of the foregoing amendment, claims 1, 8, 13, 15, 17-20, 22, and 24-57 are pending in the application. Applicants have canceled claims 2-7, 9-12, 14, 16, 21 and 23 without prejudice or disclaimer. Applicants reserve the right to pursue the canceled subject matter in one or more continuing applications. No new matter has been added.

The title has been amended to more precisely reflect the presently claimed invention. Claims 24-57 have been added to more particularly point out and distinctly claim the subject matter Applicants regard as the invention. Support for the amendments to the specification and claims can be found throughout the specification as filed.

More particularly, support for new claims 24-26 and 30-32 can be found, for example, at paragraphs [161] to [165]; paragraphs [187] to [190]; paragraph [259]; and Table 1A, page 61, row 11, of the specification as filed. Support for new claims 27, 33, 40, 47, 51, and 55 can be found, for example, at paragraphs [202] to [240]; paragraphs [241] to [248]; and Example 9 of the specification as filed. Support for new claims 28, 34, 41, 48, 52, and 56 can be found, for example, at paragraphs [420] to [422]; and Example 3 of the specification as filed. Support for new claims 29, 35, 42, 49, 53, and 57 can be found, for example, at paragraphs [249] to [255] of the specification as filed. Support for new claims 36-39, 43-46, 50, and 54 can be found, for example, at paragraphs [182] to [205]; paragraphs [886] to [926]; and claim 11 of the specification as filed.

Applicants note that the present claimed invention is primarily expressed in the spleen of humans afflicted with chronic lymphocytic leukemia (*see* Table 1B, page 239 and Table 4, page 1884 of the specification (emphasis added)). In addition, Applicants disclose that the polypeptide of the claimed invention (SEQ ID NO:764) can activate transcription through the AP1 response element in immune cells, such as T-cells (*see* Table 1E, pages 923-924). Therefore, not only is the claimed invention useful for the diagnosis of cancer, specifically chronic lymphocytic leukemia, but an *in vitro* biological activity is also provided.

Applicants respectfully assert that the claimed invention fully complies with the requirements of 35 U.S.C. §§ 101 and 112. In particular, Applicants have asserted that the claimed polypeptides are useful, for example, in the diagnosis (*i.e.*, as a diagnostic marker) and/or treatment of chronic lymphocytic leukemia. *See supra*. These assertions of utility are specific, substantial and credible. First, the disclosed uses of the polypeptides of the invention are not generally applicable to all proteins. For instance, all proteins are not useful

as a diagnostic marker for chronic lymphocytic leukemia. Second, the use of the claimed polypeptides in the detection of a specific disease such as chronic lymphocytic leukemia is certainly a "real world", substantial use.

The Restriction Requirement

The Examiner has required an election under 35 U.S.C. § 121 of one of ten groups cast by the Examiner. The Examiner contends that the individual groupings are distinct, each from each other.

Preliminarily, Applicants point out that, new claims 24-28, 30-34, 36-41, 43-48, 50-52, and 54-56 fall within the ambit of Group III as cast by the Examiner.

In order to be fully responsive, Applicants hereby provisionally elect, *with traverse*, the invention of Group III, drawn to an isolated polypeptide, represented by new claims 24-28, 30-34, 36-41, 43-48, 50-52, and 54-56.

Moreover, in order to be fully responsive, Applicants hereby elect sequences corresponding to protein encoded by the deposited HLYEU59 cDNA and/or that having an amino acid sequence disclosed in SEQ ID NO:764. New claims 24-57 read on the elected sequences.

With respect to the Examiner's division of the invention into ten groups and multiple subgroups (*See* Paper No. 4, pages 2-5) and the reasons stated therefor, Applicants respectfully traverse.

Applicants point out, that even where patentably distinct inventions appear in a single application, restriction remains improper unless the Examiner can show that the search and examination of these groups would entail a "serious burden". (*See* M.P.E.P. § 803.) In the present situation, the Examiner has failed to make such a showing.

Applicants submit that a search of polynucleotide claims of the invention would provide useful information for examining claims directed to both polynucleotides and the polypeptides encoded by these polynucleotides. In certain of the claims this is especially true because the polynucleotide sequence of these claims is defined in part by the polypeptide that the polynucleotide sequence encodes. Further, Applicants point out that, in many if not most publications, where a published nucleotide sequence is an open reading frame, the authors also include, as a matter of routine, the deduced amino acid sequence of the encoded polypeptide.

Similarly, a search of the polypeptide claims of the invention would clearly provide useful information for the examination of claims directed to antibodies either produced in response to or having affinity for the subject polypeptides. This is because antibodies are frequently defined by the antigens that they are produced in response to and the epitopes to which they bind. Moreover, in many publications where an antibody is described, the antigen that it was produced in response to is also described.

Further, searches of publications directed to polynucleotides and the use of those polynucleotides would clearly be overlapping. This is so because in many, if not most, publications which describe polynucleotides, these molecules are described by their function, characterization and/or expression profile. Thus, a search of polynucleotide claims would also provide the Examiner with art directed to the manner in which the claimed polynucleotides could be used in diagnostic and therapeutic indications.

Further, searches of publications directed to polypeptides and the use of those polypeptides would clearly be overlapping. This is so because in many, if not most, publications that describe polypeptides, these molecules are described by their function. Thus, a search of polypeptide claims would also provide the Examiner with art directed to the manner in which the claimed polypeptides could be used to treat disease states.

In view of the above, Applicants submit that the searches for polynucleotides, polypeptides, antibodies, and methods of diagnosing and treating disease states using the proteins of the subject invention would clearly be overlapping. Accordingly, Applicants request that the Examiner reconsider and withdraw the restriction requirement and examine the subject matter of Groups I-X together in the present application.

Moreover, should the Restriction Requirement be made final, Applicants respectfully request that upon indication of allowable subject matter, the Examiner rejoin the claims of Group III with Group V.

Applicants retain the right to petition from the restriction requirement under 37 C.F.R. § 1.144.

Conclusion

Applicants respectfully request the amendments and remarks of the present response be entered and be made of record in the file history of the present application. In view of the foregoing amendments and remarks, Applicants believe they have fully addressed the Examiner and that this application is now in condition for examination. The Examiner is invited to call the undersigned at the phone number provided below if any further action by Applicant would expedite the examination of this application.

Applicants believe that there are no fees due in connection with the filing of this paper. However, should a fee be due, please charge the fees to our Deposit Account No. 08-3425. If a fee is required for an extension of time under 37 C.F.R. § 1.136, such an extension is requested and the appropriate fee should also be charged to our Deposit Account.

Respectfully submitted,

Date: March 25, 2003

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